PROJECT MANAGEMENT GUIDELINE

APPENDIX A - GLOSSARY

Appendix A: Glossary

A

Activity - An element of work performed during the course of a project. An activity normally has an expected duration, expected cost, and expected resource requirements. Activities are often subdivided into tasks. (PMBOK)

Activity Definition – The process of identifying the specific activities that must be performed in order to produce the various project deliverables. (PMBOK)

Activity Duration Estimating - Estimating the number of work periods, which will be needed to complete individual activities. (PMBOK)

Acquisition Process - The process of acquiring personnel/goods/services for new or existing work within the general definitions of contracts requiring an offer and acceptance, consideration, lawful subject matter and competent parties.

Action Item Status - A list of problem issues, including a description, point of contact, and dates of action and resolution.

Actual Cost of Work Performed (ACWP) - Total costs incurred (direct and indirect) in accomplishing work during a given time period. (PMBOK)

Administrative Closure - Generating, gathering, and disseminating information to formalize project completion. (PMBOK)

Agency Management – A term that refers to those people who are responsible for the business operations of an agency.

Alignment - The degree of agreement, conformance, and consistency among organizational purpose, vision and values; structures, systems, and processes; and individual skills and behaviors. (GAO)

Alternative Analysis - Breaking down a complex situation for the purpose of generating and evaluating different solutions and approaches.

Analysis - The detailed study and examination of something, in order to discover more about it (from Cambridge International Dictionary of English). Analysis typically includes discovering parts of the item being studied, as well as how they fit together. An example is the study of schedule variances for cause, impact, corrective action, and results.

Application Area - A category of projects that have a common element not present in all projects. Application areas are usually defined in terms of either the product of the project (i.e., by similar technologies or industry sectors) or the type of customer (e.g., internal vs. external, government vs. commercial). Application areas often overlap. (PMBOK)

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Approve - To accept as satisfactory. Approval implies that the item approved has the endorsement of the approving entity. The approval may still require confirmation by somebody else, as in levels of approval. In management use, the important distinction is between approved and authorized. See authorization.

Areas of Responsibility - Used to define the person or organizational entity responsible for specific policy areas, processes, and procedures as identified.

Arrow Diagramming Method (ADM) - A network diagramming technique in which activities are represented by arrows. The tail of the arrow represents the start and the head represents the finish of the activity (the length of the arrow does not represent the expected duration of the activity). Activities are connected at points called nodes (usually drawn as small circles) to illustrate the sequence in which the activities are expected to be performed. (PMBOK)

Authorization - The power granted by management to specified individuals allowing them to approve transactions, procedures, or total systems.

Authorized Work - An effort that has been approved by higher authority and may or may not be defined.

B

Backward Pass - The calculation of late finish dates and late start dates for the uncompleted portions of all network activities. Determined by working backwards through the network logic from the project's end date. The end date may be calculated in a forward pass or set by the customer or sponsor. (PMBOK)

Bar Chart - A graphic display of schedule-related information. In the typical bar chart, activities or other project elements are listed down the left side of the chart, dates are shown across the top, and activity durations are shown as date-placed horizontal bars. (PMBOK)

Baseline - The original plan for a project, a work package, or an activity, plus or minus approved changes. Usually used with a modifier (e.g., cost baseline, schedule baseline performance measurement baseline). (PMBOK)

Baselining - Obtaining data on the current process that provides the metrics against which to compare improvements and to use in benchmarking. (GAO)

Benchmark - A measurement or standard that serves as a point of reference from which process performance is measured. (GAO)

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Benchmarking - A structured approach for identifying the best practices from industry and government, and comparing and adapting them to the organization's operations. Such an approach is aimed at identifying more efficient and effective processes for achieving intended results, and suggesting ambitious goals for program output, product/service quality, and process improvement. (GAO)

Benefit - A term used to indicate an advantage, profit, or gain attained by an individual or organization. (GAO)

Best Practices - The processes, practices, or systems identified in public and private organizations that performed exceptionally well and are widely recognized as improving an organization's performance and efficiency in specific areas. Successfully identifying and applying best practices can reduce business expenses and improve organizational efficiency. (GAO)

Budget - When unqualified, refers to an estimate of funds planned to cover a project or specified period.

Budget At Completion (BAC) - The estimated total cost of the project when done. (PMBOK)

Budgeted Cost of Work Performed (BCWP) - The sum of the approved cost estimates (including any overhead allocation) for activities (or portions of activities) completed during a given period (usually project-to-date). (PMBOK)

Budgeted Cost of Work Scheduled (BCWS) - The sum of the approved cost estimates (including any overhead allocation) for activities (or portions of activities) scheduled to be performed during a given period (usually project-to-date). (PMBOK)

Business Impact Analysis - Identifies project constraints, alternatives, and related assumptions as they apply to the initiation phase.

Business Case - A structured proposal for business improvement that functions as a decision package for organizational decision-makers. A business case includes an analysis of business process performance and associated needs or problems, proposed alternative solutions, assumptions, constraints, and a risk-adjusted cost-benefit analysis. (GAO)

Business Plan - Model used by a manager for planning and scheduling project work.

Business Problem - A question, issue, or situation, pertaining to the business, which needs to be answered or resolved.

Business Process - A collection of related, structured activities--a chain of events--that produce a specific service or product for a particular customer or customers. (GAO)

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Business Process Reengineering - In government, a systematic disciplined improvement approach that critically examines, rethinks, and redesigns mission-delivery processes and sub-processes within a process management approach. In a political environment, the approach achieves radical mission performance gains in meeting customer and stakeholder needs and expectations. (GAO)

Business Vision - A description of what senior management wants to achieve with the organization in the future. A business vision usually addresses a medium to long-term period and is expressed in terms of a series of objectives. (GAO)

C

Cabinet Secretary – An officer of the Governor's Cabinet appointed to oversee the operations of a group of functionally related agencies.

Calendar Unit - The smallest unit of the calendar produced. This unit is generally in hours, days, or weeks. It can also be grouped in shifts. (PMBOK)

Change Control - The process of controlling, documenting, and storing the changes to control items. This includes proposing the change, evaluating it, approving or rejecting it, scheduling it and tracking it.

Change Control Board (CCB) - A formally constituted group of stakeholders responsible for approving or rejecting changes to the project baselines. (PMBOK)

Change in Scope - A change in objectives, work plan, or schedule that results in a material difference from the terms of previously granted approval to proceed. (PMBOK)

Change Management Process - A set of tasks or procedures established to ensure that project performance is measured to the baseline and changes are reviewed, approved, or rejected, and the baseline updated.

Chart of Accounts - Any numbering system used to monitor project costs by category (e.g., labor, supplies, materials). The project chart of accounts is usually based upon corporate chart of accounts of the primary performing organization. (PMBOK)
Code of Accounts - Any numbering system used to uniquely identify each element of the work breakdown structure. (PMBOK)

Common Requirements Vision (CRV) – The document that presents the business case for the Commonwealth EA Initiative and represents the initial step in the evolution of the Enterprise Architecture (EA) process model. The CRV establishes the agreements reached between business and IT leaders regarding: the most significant, influencing trends on the enterprise; the enterprise business strategies that will drive the EA; the information required by the business

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decision makers to satisfy the enterprise business strategies; implications for application portfolio development; and the requirements for the technical architecture.

Commonwealth Project (CP) - A temporary endeavor, undertaken by a Commonwealth executive branch agency (or agencies), to deliver a unique product or service. Commonwealth projects are expected to follow project management best practices and comply with project management requirements identified in the *Code of Virginia*, Governor's Executive Orders, and COV ITRM policies, standards, and guidelines.

Commonwealth Project Management (CPM).- The application of knowledge, skills, tools, and techniques to meet or exceed stakeholder needs and expectations from a Commonwealth Project.

Commonwealth Technology Management (CTM) - In the Commonwealth of Virginia, it is the application of information technology investment management (ITIM) principles and practices in support of the business activities of state government.

Concept - An imaginative arrangement of a set of ideas.

Conceptual Project Planning - The process of developing broad-scope project documentation from which the technical requirements, estimates, schedules, control procedures, and effective project management will all flow.

Concurrent Engineering - An approach to project staffing that, in its most general form, calls for implementers to be involved in the design phase. Sometimes confused with fast tracking. (PMBOK)

Condition - The key circumstances, situations, etc., that are causing concern, doubt, anxiety, or uncertainty. In a risk statement, the condition phrase is the phrase at the beginning of the statement. (SEI)

Configuration Management (CM) - Configuration Management is a formal discipline that provides project team members and customers with the methods and tools that are used to identify the product developed, establish baselines, control changes to these baselines, record and track status, and audit the product.

Consequence - The possible negative outcomes of the current conditions that are creating uncertainty. In a risk statement, the consequence phrase is the phrase at the end of the statement. (SEI)

Contingency Planning - The development of a management plan that identifies alternative strategies to be used to ensure project success if specified risk events occur.

Contingency Reserve - A separately planned quantity used to allow for future situations. Some reserves may be planned for only in part (sometimes called "known unknowns"). For example,

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rework is certain, the amount of rework is not. Contingency reserves involve cost, schedule, or both. Contingency reserves are intended to reduce the impact of missing cost or schedule objectives. Contingency reserves are not included in the project's cost and schedule baselines. (PMBOK)

Contract - When used as a noun in this manual, contract refers to an agreement enforceable by law, between two or more competent parties, to do or not to do something not prohibited by law, for a consideration. A contract is any type of agreement or order for the procurement of goods or services. As a verb, contract has its usual legal sense, signifying the making of an agreement for consideration. (DGS, VENDORS MANUAL DECEMBER 1998 EDITION)

Contract, Fixed Price - A contract that provides for a firm unit or total price to be established at the time of order placement or contract award. The contractor bears the full risk for profit or loss.

Contract, Fixed Price With Escalation/De-escalation - A fixed price type of contract that provides for the upward and downward revision of the stated contract price upon the occurrence of certain contingencies (such as fluctuations in material costs and labor rates) specifically defined in the contract. (DGS, VENDORS MANUAL DECEMBER 1998 EDITION)

Contract, Cost-Plus-A-Fixed-Fee - A cost-reimbursement type contract that provides for the payment of a fixed fee to the contractor. The fixed fee, once negotiated, does not vary with the actual cost but may be adjusted as a result of any subsequent changes in the scope of work or services to be performed under the contract. (DGS, VENDORS MANUAL DECEMBER 1998 EDITION)

Contract, Cost-Plus-A-Percentage-Of-Cost - A form of contract which provides for a fee or profit at a specified percentage of the contractor's actual cost of accomplishing the work. Except in case of emergency affecting the public health, safety or welfare and for some insurance contracts, no public contract shall be awarded on the basis of cost plus a percentage of cost (*Code of Virginia*, § 2.2-4331). (DGS, VENDORS MANUAL DECEMBER 1998 EDITION)

Contract Administration - Managing the relationship with the seller. (PMBOK)

Contract Closeout - Completion and settlement of the contract, including resolution of all outstanding items. (PMBOK)

Control - The process of comparing actual performance with planned performance, analyzing variances, evaluating possible alternatives, and taking appropriate corrective action as needed. (PMBOK)

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Control Charts - Control charts are a graphic display of the results, over time and against established control limits, of a process. They are used to determine if the process is in control or in need of adjustment. (PMBOK)

Control Item - A project element that is considered a unit for the purpose of change and configuration management. This includes such items as software modules, versions of software systems, the project design document, the project plans, and so forth.

Control System - A mechanism that reacts to the current project status in order to ensure accomplishment of project objectives.

Core Processes - Processes that have clear dependencies and that require the same order on most projects.

Corrective Action - Changes made to bring expected future performance of the project into line with the plan. (PMBOK)

Cost Benefit Analysis (CBA) - A technique used to compare the various costs associated with an investment with the benefits that it proposes to return. Both tangible and intangible factors should be addressed and accounted for. (GAO)

Cost Budgeting - Allocating the cost estimates to individual project components. (PMBOK)

Cost Control - Controlling changes to the project budget. (PMBOK)

Cost Estimating - Estimating the cost of the resources needed to complete project activities. (PMBOK)

Cost of Quality - The costs incurred to ensure quality. The cost of quality includes quality planning, quality control, quality assurance, and rework. (PMBOK)

Cost Performance Index (CPI) - The ratio of budgeted costs to actual costs (BCWP/ACWP). CPI is often used to predict the magnitude of a possible cost overrun using the following formula: original cost estimate/CPI = projected cost at completion. (PMBOK)

Cost/Schedule Impact Analysis (CSIA) - The process followed to determine the cost and/or schedule impact of a specific change with a project.

Cost Variance (CV) - (1) Any difference between the estimated cost of an activity and the actual cost of that activity. (2) In earned value, BCWP less ACWP. (PMBOK)

Crashing - Taking action to decrease the total project duration after analyzing number alternatives to determine how to get the maximum duration compression for the cost. (PMBOK)

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Critical Activity - Any activity on a critical path. Most commonly determined by using the critical path method. Although some activities are "critical" in the dictionary sense without being on the critical path, this meaning is seldom used in the project context. (PMBOK)

Critical Path - In a project network diagram, these are the series of activities, which determine the earliest completion of the project. The critical path will generally change from time to time as activities are completed ahead of or behind schedule. Although normally calculated for the entire project, the critical path can also be determined for a milestone or subproject. The critical path is usually defined as those activities with float less than or equal to a specified value, often zero. (PMBOK)

Critical Path Method (CPM) - A network analysis technique used to predict project duration by analyzing which sequence of activities (which path) has the least amount of scheduling flexibility (the least amount of float). Early dates are calculated by means of a forward pass using a specified start date. Late dates are calculated by means of a backward pass starting from a specified completion date (usually the forward pass' calculated project early finish date). (PMBOK)

Critical Success Factors - Defines how progress and outcomes will be measured on a project—sometimes called objectives. Some typical critical success factors include technology (specifications, performance, quality), time (due dates, milestones), and cost (total investment, required cash flow, profits.)

Current Finish Date - The current estimate of the point in time when an activity will be completed. (PMBOK)

Current Start Date - The current estimate of the point in time when an activity will begin. (PMBOK)

Customer – The ultimate users of a product or service.

D

Data Date - The point in time that separates actual (historical) data from future (scheduled) data. Also called as-of-date. (PMBOK)

Decision Criteria - A documented set of factors that are used to examine and compare the costs, risks, and benefits of various IT projects and systems. These decision criteria consist of (1) screening criteria, which are used to identify whether new projects meet initial acceptance requirements and ensure that the project is reviewed at the most appropriate organizational level, and (2) criteria for assessing and ranking all projects. These ranking criteria weigh and compare the relative costs, risks, and benefits of each project against all other projects. (GAO)

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Decomposing (Decomposition) - The process of breaking down activities and the work package to a manageable level.

Deflection - The act of transferring all or part of a risk to another party, usually by some form of contract.

Deliverable - Any measurable, tangible, verifiable outcome, result, or item that must be produced to complete a project or part of a project. Often used more narrowly in reference to an external deliverable, this deliverable is subject to approval by the project sponsor or customer. (PMBOK)

Design Documents - Technical documents that lay out in detail the anticipated design of the project deliverable.

Development - The actual work performed to accomplish, effect, or bring about the Information Technology Project.

Discrete Activity - A task that has a deliverable, is measurable, and has a definite start and finish. An item on the Work Breakdown Structure would be an example of a discrete activity.

Dummy Activity - An activity of zero duration used to show a logical relationship in the arrow diagramming method. Dummy activities are used when logical relationships cannot be completely or correctly described with regular activity arrows. Dummies are shown graphically as a dashed line headed by an arrow. (PMBOK)

Duration - The number of work periods (not including holidays or other non-working periods) required to complete an activity or other project element. Usually expressed as workdays or workweeks. Sometimes incorrectly equated with elapsed time. *(*PMBOK)

Duration Compression - Shortening the project schedule without reducing the project scope. Duration compression is not always possible and often requires an increase in project cost. (PMBOK)

E

Early Finish Date (EF) - In the critical path method, the earliest possible point in time on which the uncompleted portions of an activity (or the project) can finish based on the network logic and any schedule constraints. Early finish dates can change as the project progresses and changes are made to the Project Plan. (PMBOK)

Early Start Date - In the critical path method, the earliest possible point in time on which the uncompleted portions of an activity (or the project) can start, based on the network logic and any

schedule constraints. Early start dates can change as the project progresses and changes are made to the Project Plan. (PMBOK)

Earned Value (EV) - (1) A method for measuring project performance. It compares the amount of work that was planned with what was actually accomplished to determine if cost and schedule performance is as planned. (2) The budgeted cost of work performed for an activity or group of activities. (PMBOK)

Effort - The number of labor units required to complete an activity or other project element. Usually expressed as staff hours, staff days, or staff weeks. Should not be confused with duration. *(PMBOK)*

Enterprise – An organization with common or unifying business interests. An enterprise may be defined at the Commonwealth level, the Secretariat level, or agency level for programs and projects requiring either vertical or horizontal integration within the Commonwealth, a Secretariat, or agency, or between multiple Secretariats, agencies and/or localities.

Enterprise Architecture (EA) - A method or framework for developing, implementing, and revising business-focused Information Technology (IT) guidance. The resulting guidance describes how the enterprise can best use technology and proven practices to improve the way it does business. In the Commonwealth, EA is built on the business needs of state and local government agencies. EA is described in a series of documents that showcase the development and revision process, the involved parties, and the resulting guidance. The Commonwealth EA relies on a governance model (roles and responsibilities), business and technical inputs, and knowledge of how agencies presently do business to develop explicit policies, standards, and guidelines for information technology use.

Enterprise Technology Program – A group of related IT projects aggregated for management purposes, that support a defined enterprise.

Enterprise Program Management (EPM) – An Information Technology Investment Management-based methodology to manage programs and projects of enterprise significance. EPM focuses on the management of multiple related programs and projects that individually support the same mission or ongoing activity.

Enterprise Technology Program - A group of related IT projects, aggregated for management purposes, that support a defined enterprise.

Estimate - An assessment of the likely quantitative result. Usually applied to project costs and durations and should always include some indication of accuracy (e.g., +/- x percent). Usually used with a modifier (e.g., preliminary, conceptual, feasibility). Some application areas have specific modifiers that imply particular accuracy ranges (e.g., order-of-magnitude estimate, budget estimate, and definitive estimate in engineering and construction projects). (PMBOK)

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Estimate at Completion (EAC) - The expected total cost of an activity, a group of activities, or of the project when the defined scope of work has been completed. Most techniques for forecasting EAC include some adjustment of the original cost estimate based on project performance to date. Also shown as "estimated at completion." Often shown as EAC = Actuals-to-date + ETC. (PMBOK)

Estimate to Complete (ETC) - The expected additional cost needed to complete an activity, a group of activities, or the project. Most techniques for forecasting ETC include some adjustment to the original estimate based on project performance to date. Also called "estimated to complete." (PMBOK)

Exception Reporting - The process of documenting those situations where there are significant deviations from the specifications of a project. The assumption is made that the project will be developed within established boundaries. When the process falls outside of those boundaries, a report is made on why this deviation occurred. (PMBOK)

Expected Monetary Value - The product of an event's probability of occurrence and the gain or loss that will result. For example, if there is a 50 percent probability that it will rain, and rain will result in a $100 loss, the expected monetary value of the rain event is $50 (.5 x $100). (PMBOK)

F

Facilitating Processes - Interactions among processes that are more dependent on the nature of the project.

Fast Tracking - Compressing the project schedule by overlapping activities that would normally be done in sequence, such as design and construction. Sometimes confused with concurrent engineering. (PMBOK)

Feasibility Study - A formal document that analyzes and discusses a possible solution to a technical or business issue and determines if the solution is practical, reasonable and doable.

Financial Audit - A thorough examination of a project by an evaluation team that includes a detailed overview of the project's financial procedures, budgets, records, etc. It may deal with a project as a whole or the separate individual parts of a project.

Financial Closure - The process of completing and terminating the financial and budgetary aspects of the project being performed. It includes both (external) contract closure and (internal) project account closure.

Float - The amount of time that an activity may be delayed from its early start without delaying the project finish date. Float is a mathematical calculation and can change as the project

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progresses and changes are made to the Project Plan. Also called slack, total float, and path float. (PMBOK)

Forward Pass - The calculation of the early start and early finish dates for the uncompleted portions of all network activities. (PMBOK)

Four-Year Investment Cost - The planned project and ongoing support costs for the current and following budget biennium in which the project is authorized.

Free Float (FF) - The amount of time an activity can be delayed without delaying the early start of any immediately following activities. (PMBOK)

Functional Manager - A manager responsible for activities in a specialized department or function (e.g., engineering, manufacturing, marketing.) (PMBOK)

Functional Organization - An organization structure in which staff are grouped hierarchically by specialty (e.g., production, marketing, engineering, and accounting at the top level; with engineering, further divided into mechanical, electrical, and others). (PMBOK)

Function Point - Unit of measure to quantify the overall size and complexity of a computer application.

Functional Requirements - What the systems/products are, do, or provide from the customer's point of view.

G

Gantt Chart - See bar chart. (PMBOK)

Grade - A category or rank used to distinguish items that have the same functional use (e.g., "hammer") but do not share the same requirements for quality (e.g., different hammers may need to withstand different amounts of force.) (PMBOK)

Graphical Evaluation and Review Technique (GERT) - A network analysis technique that allows for conditional and probabilistic treatment of logical relationships (i.e., some activities may not be performed.) (PMBOK)

Guidelines - Are directives and specifications, similar to standards, but advisory in nature. In essence, guidelines constitute recommendations which are not binding on agencies and institutions of higher education. (COV ITRM STANDARD GOV2000-01.1)

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H

Hammock - An aggregate or summary activity (a group of related activities is shown as one and reported at a summary level). A hammock may or may not have an internal sequence. (PMBOK)

Hanger - An unintended break in a network path. Missing activities or missing logical relationships usually causes hangers. (PMBOK)

I

Impact - The loss or effect on the project, program, or enterprise if the risk occurs. Impact is one of the three attributes of a risk. (SEI)

Impact Statement - A cause and effect report generated at the manager level to show the impact that new projects will have on current schedules and resources as they enter the work stream.

Implementation - Occurs when products that have completed testing are moved into production or into their working environment. Normally used as a term on Information Technology projects.

Independent Project Oversight - A process that employs a variety of quality control, inspection, test measurement, and other observation processes to ensure that project objectives are achieved in accordance with an approved plan. Project oversight is usually done by an independent entity (separate from the project team) trained or experienced in a variety of management and technical review methods. Project oversight includes both technical and management oversight.

Independent Verification and Validation (IV&V) – IV&V is performed by an organization that is technically, managerially, and financially independent of the development organization. Verification & Validation (V&V) is a system engineering process for evaluating the correctness and quality of a product throughout its life cycle (See definitions of Verification and Validation). (NASA)

Information System - The organized collection, processing, transmission, and dissemination of information in accordance with defined procedures, whether automated or manual. Information systems include non-financial, financial, and mixed systems. (GAO)

Information Technology (IT) - The hardware and software operated by an organization to support the flow or processing of information in support of business activities, regardless of the technology involved, whether computers, telecommunications, or other.

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Information Technology Investment Management (ITIM) - An integrated approach to managing IT investments that provides for the continuous identification, selection, control, life cycle management, and evaluation of IT investments. ITIM uses structured processes to minimize risks and maximize return on IT investments. ITIM is the basis for the Commonwealth's approach to technology management.

Initial Risk Identification - The process during the initial concept phase of identifying risks that might impact a project. The risk identification process is recommended for agencies to evaluate a project.

Initiation - Committing the organization to begin a project phase. (PMBOK)

Investment Review Board (IRB) - A decision-making body, made up of senior program, financial, and information managers, that is responsible for making decisions about IT projects and systems, based on comparisons and trade-offs between competing projects and an emphasis on meeting mission needs and improving organizational performance. (GAO)

IT Investment Management - An integrated approach to managing IT investments that provides for the continuous identification, selection, control, life-cycle management and evaluation of IT investments. A structured process to provide a systematic method to minimize risks and maximize return on IT investments. (Meta Group)

IT Strategic Plan - A document which aligns IT strategy and investments with organizational business priorities, goals, and objectives.

IT Strategic Planning (ITSP) - An ITIM-based planning methodology that looks at IT resources and projects as capital investments and forms a foundation for the selection, control and evaluation of IT resources and projects as part of a business-driven technology portfolio.

L

Lag - A modification of a logical relationship, which directs a delay in the successor task. For example, in a finish-to-start dependency with a 10-day lag, the successor activity cannot start until 10 days after the predecessor has finished. (PMBOK)

Late Finish Date (LF) - In the critical path method, the latest possible point in time that an activity may be completed without delaying a specified milestone (usually the finish date.) (PMBOK)

Late Start Date (LS) - In the critical path method, the latest possible point in time that an activity may begin without delaying a specified milestone (usually the project date.) (PMBOK)

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Lead – In a Project Network Diagram (PERT Chart), a modification of a logical relationship, which allows an acceleration of the successor task. For example, in a finish-to-start dependency with a 10-day lead, the activity can start 10 days before the predecessor has finished. (PMBOK)

Leadership - The way in which the project manager influences the project team to behave in a manner that will facilitate project goal achievement.

Level of Effort (LOE) - Support-type activity (e.g., vendor or customer liaison) that does not readily lend itself to measurement of discrete accomplishment. It is generally characterized by a uniform rate of activity over a specific period. (PMBOK)

Life Cycle - The type of methodology to be used in project development, e.g. System Development Methodology, Information Engineering Methodology, or Rapid Application Development Methodology. (PMBOK)

Life-Cycle Cost - The overall estimated cost for a particular object over the time corresponding to the life of the object, including direct and indirect initial costs plus any periodic or continuing costs for operation and maintenance. (GAO)

Life Cycle Costing - The concept of including acquisition, operating, and disposal costs when evaluating various alternatives. (PMBOK)

Line Manager - (1) The manager of any group that actually makes a product or performs a service. (2) A functional manager. (PMBOK)

Logical Relationship - A dependency between two project activities, or between a project activity and a milestone. (See also precedence relationship.) The four possible types of logical relationships are: (PMBOK)

Finish-to-start: the "from" activity must finish before the "to" activity can start.
Finish-to-finish: the "from" activity must finish before the "to" activity can finish.
Start-to-start: the "from" activity must start before the "to" activity can start.
Start-to-finish: the "from" activity must start before the "to" activity can finish.

M

Major IT Project - In the Commonwealth of Virginia, Major IT Projects are those technology projects that exceed $1 million in estimated total project cost and deemed to be mission-critical or of statewide application by the Secretary of Technology.

Management Reserve - A separately planned quantity used to allow for future situations, which are impossible to predict (sometimes called "unknown unknowns"). Management reserves may involve cost or schedule. Management reserves are intended to reduce the risk of missing cost or

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schedule objectives. Use of management reserve requires a change to the project's cost baseline. (PMBOK)

Master Schedule - A comprehensive list of an approved project, containing schedule and progress statistics. (PMBOK)

Matrix Organization - Any organizational structure in which the project manager shares responsibility with the functional managers for assigning priorities and for directing the work of individuals assigned to the project. (PMBOK)

Methodology - The processes, policies, and guidelines that are included as part of the framework for project management.

Milestone - A significant event in the project, usually completion of a major deliverable. (PMBOK)

Milestone Schedule - A summary-level schedule, which identifies the major milestones. (PMBOK)

Mission Statement - A concise statement, usually one paragraph, summarizing the purpose and goals of a project.

Mitigate – Dealing with a risk by developing strategies and actions for reducing (or eliminating) the impact, probability, or both, of the risk to some acceptable level. It may also involve shifting the timeframe when action must be taken. (SEI)

Mitigation - Taking steps to lessen risk by lowering the probability of a risk event's occurrence or reducing its effect, should it occur. (PMBOK)

Mitigation Approach - The approach taken to deal with a risk. This can be to accept, research, watch, or mitigate.

Mitigation Plan - An action plan for risks that are to be mitigated. It documents the strategies, actions, goals, schedule dates, tracking requirements, and all other supporting information needed to carry out the mitigation strategy.

Monitoring - The capture, analysis, and reporting of project performance, usually as compared to plan. (PMBOK)

Model - A representation of a set of components of a process, system, or subject area. A model is generally developed for understanding, analysis, improvement, and/or replacement of the process. (GAO)

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Monte Carlo Analysis - A schedule risk assessment technique that performs a project simulation many times in order to calculate a distribution of likely results. (PMBOK)

N

Near Critical Activity - An activity that has low total float. (PMBOK)

Network Analysis - The process of identifying early/late start and finish dates for the uncompleted portions of project activities. See also Critical Path Method, Program Evaluation and Review Technique, and Graphical Evaluation and Review Technique. (PMBOK)

Node – One of the defining points of a network; a junction point joined to some or all of the other dependency lines. See also arrow diagramming method and precedence diagramming method. (PMBOK)

Non-major IT Project - In the Commonwealth of Virginia, Non-major IT Projects are those technology projects with an estimated total project cost of less than $1 million and not deemed to be mission critical or designated as having statewide application by the Secretary of Technology.

O

Ongoing Support Cost - The periodic and continuing cost to operate and maintain the product or service delivered by the project.

Order of Magnitude - An estimate made without detailed data usually produced from cost data. This type of estimate is used during the formative stages of an expenditure program for initial evaluation of the project.

Organizational Breakdown Structure (OBS) - A depiction of the project organization arranged to relate work packages to organizational units. (PMBOK)

Organizational Planning - Identifying, documenting, and assigning project roles, responsibilities, and reporting relationships. (PMBOK)

Outcome - The ultimate, long-term, resulting effect--both expected and unexpected--of the customer's use or application of the organization's outputs. (GAO)

Overall Change Control - Coordinating changes across the entire project. (PMBOK)

Oversight Committee – A body chartered by the Secretary of Technology and a Cabinet Secretary to review and make recommendations regarding Major IT projects within that Secretariat.

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P

Parametric Estimating - An estimating technique that uses a statistical relationship between historical data and other variables (e.g., square footage in construction, lines of code in software development) to calculate an estimate. (PMBOK)

Pareto Diagram - A histogram that, ordered by frequency of occurrence, shows how many results were generated by each identified cause. (PMBOK)

Path - A set of sequentially connected activities in a project network diagram. (PMBOK)

Path Convergence - In mathematical analysis, the tendency of parallel paths of approximately equal duration to delay the completion of the milestone where they meet. (PMBOK)

Percent Complete (PC) - An estimate, expressed as a percent, of the amount of work, which has been completed, on an activity or group of activities. (PMBOK)

Performance Gap - The gap between what customers and stakeholders expect and what each process and related subprocesses produces in terms of quality, quantity, time, and cost of services and products. (GAO)

Performance Measurement - The process of developing measurable indicators that can be systematically tracked to assess progress made in achieving predetermined goals and using such indicators to assess progress in achieving these goals. (GAO)

Performance Reporting - Collecting and disseminating information about project performance to help ensure project progress. (PMBOK)

Performing Organization - The enterprise whose employees are most directly involved in doing the work of the project. (PMBOK)

PERT Chart - A specific type of project network diagram. See Program Evaluation and Review Technique. (PMBOK)

Plan - An intended future course of action.

Policy - Are general statements of direction and purpose designed to promote the coordinated planning, practical acquisition, effective development, and efficient use of information technology resources. (COV ITRM STANDARD GOV2000-01.1)

Post Implementation Report - Documents the successes and failures of a project and suggest follow up actions. It provides a historical record of the planned and actual budget and schedule. Other selected metrics on the project can also be collected, based upon state organization

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procedures. The report also contains recommendations for other projects of similar size and scope.

Post-implementation Review (PIR) - An evaluation tool that compares the conditions before the implementation of a project (as identified in the business case) with the actual results achieved by the project. (GAO)

Precedence Diagramming Method (PDM) - A network diagramming technique in which activities are represented by boxes (or nodes). Activities are linked by precedence relationships to show the sequence in which the activities are to be performed. (PMBOK)

Precedence Relationship - The term used in the precedence diagramming method for a logical relationship. In current usage, however, precedence relationship, logical relationship, and dependency are widely used interchangeably regardless of the diagramming method in use. (PMBOK)

Predecessor Activity - (1) In the arrow diagramming method, the activity that enters a node. (2) In the precedence diagramming method, the "from" activity. (PMBOK)

Priority - The imposed sequences desired with respect to the scheduling of activities within previously imposed constraints.

Probability - The likelihood the risk will occur. Probability is one of the three attributes of risk. (SEI)

Procedure - A collection of steps that the organization is responsible for implementing to ensure that policies and process requirements are met. The agency may use guidelines to develop these procedures.

Procurement - The procedures for obtaining goods or services, including all activities from the planning steps and preparation and processing of a requisition, through receipt and acceptance of delivery and processing of a final invoice for payment. (DGS)

Procurement Cost - The total estimated cost of the goods or services being purchased.

Product - General terms used to define the result of a project delivered to a customer.

Product Description Statement - A non-formal, high-level document that describes the characteristics of the product/process to be created.

Program – A group of related projects managed in a coordinated way. Programs usually include an element of ongoing activity. (PMBOK)

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Program Manager – A person responsible for the management and coordination of a group of related projects.

Progress Analysis - The evaluation of progress against the approved schedule and the determination of its impact. For cost, this is the development of performance indices.

Program Evaluation and Review Technique (PERT) - An event-oriented network analysis technique used to estimate project duration when there is a high degree of uncertainty with the individual activity duration estimates. PERT applies the critical path method to a weighted average duration estimate. (PMBOK)

Project - A temporary endeavor undertaken to deliver a unique product or service.

Project Administration - Making Project Plan modifications; may result from such things as: new estimates of work still to be done, changes in scope/functionality of end-product(s), resource changes, unforeseen circumstances. It includes monitoring the various Execution Phase activities, monitoring risks, status reporting, and reviewing/authorizing project changes as needed.

Project Business Objective - A desired result produced by a project that answers or resolves a business problem.

Project Charter - A document issued by senior management that provides the project manager with the authority to apply organizational resources to project activities. (PMBOK)

Project Communications Management - A subset of project management that includes the processes required to ensure proper collection and dissemination of project information. It consists of communications planning information distribution, performance reporting, and administrative closure. (PMBOK)

Project Concept Document (PCD) - The document that is the foundation for making a decision to initiate a project. It describes the project purpose and presents a preliminary business case for pursuing the project. It gives decision makers the opportunity to determine project viability.

Project Cost - The total cost to provide the business driven, technology-based product or service. The costs include the hardware, software, services, installation, management, maintenance, support, training, and internal staffing costs planned for the project. Internal staffing costs are the apportioned salaries and benefits of the project team members.

Project Cost Management - A subset of project management that includes the processes required to ensure that the project is completed within the approved budget. It consists of resource planning, cost estimating, cost budgeting, and cost control. (PMBOK)

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Project Description – An initial, high-level statement describing the purpose, benefits, customer(s), general approach to development and characteristics of a product or service required by the organization.

Project Duration - The elapsed time from project start date through to project finish date.

Project Human Resource Management - A subset of project management that includes the processes required to make the most effective use of the people involved with the project. It consists of organizational planning, staff acquisition, and team development. *(PMBOK)*

Project Initiation - The conceptual development phase of a project. A process that leads to approval of the project concept and authorization (through a charter) to begin detailed planning.

Project Integration Management - A subset of project management that includes the processes required to ensure that the various elements of the project are properly coordinated. It consists of Project Plan development, Project Plan execution, and overall change control. *(PMBOK)*

Project Management (PM) - The application of knowledge, skills, tools, and techniques to project activities in order to meet or exceed stakeholder needs and expectations from a project. (PMBOK)

Project Manager - The individual appointed and given responsibility for management of the project. (PMBOK)

Project Measures of Success - The measurable, business-oriented indicators that will be used to assess progress made in achieving planned project objectives.

Project Network Diagram - Any schematic display of the logical relationships of project activities. The Diagram is always drawn from left to right to reflect project chronology. Often incorrectly referred to as a "PERT chart." (PMBOK)

Project Oversight - A process that employs a variety of quality control, inspection, test measurement, and other observation processes to ensure that planned project objectives are achieved in accordance with an approved plan. Project oversight includes both technical and management oversight. Project oversight is usually done by an independent entity (separate from the project team) trained or experienced in a variety of
management and technical review methods.

Project Phase - A collection of logically related project activities, usually culminating in the completion of a major deliverable. (PMBOK)

Project Plan - A formal, approved document used to guide both project execution and project control. The primary uses of the Project Plan are to document planning assumptions, decisions

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and project baselines; facilitate communication among stakeholders; and, essentially describe how the project will be executed and controlled.

Project Procurement Management - A subset of project management that includes the processes required to acquire goods and services from outside the performing organization. It consists of procurement planning, solicitation planning, solicitation, source selection, contract administration, and contract closeout. (PMBOK)

Project Quality Management - A subset of project management that includes the processes required to ensure that the project will satisfy the needs for which it was undertaken. It consists of quality planning, quality assurance, and quality control. *(*PMBOK)

Project Risk Management - A subset of project management that includes the processes concerned with identifying, analyzing, and responding to project risk. It consists of risk identification, risk quantification, risk response development, and risk response control. (PMBOK)

Project Schedule - The planned dates for performing activities and meeting milestones. (PMBOK)

Project Scope - The sum of the products and services to be provided as a project. It establishes the limits of a project. The project scope defines who, what, where, when, and why for a project.

Project Scope Management - A subset of project management that includes the processes required to ensure that the project includes all of the work required, and only the work required, to complete the project successfully. It consists of initiation, scope planning, scope definition, scope verification, and scope change control. (PMBOK)

Project Sponsor - An individual, usually part of the organization management team, who makes the business case for the project. This individual usually has the authority to define project goals, secure resources, and resolve organizational and priority conflicts.

Project Team Members - The individuals that report either part time or full time to the project manager and are responsible for the completion of project tasks.

Project Time Management - A subset of project management that includes the processes required to ensure timely completion of the project. It consists of activity definition and activity sequencing, activity duration estimating schedule development, and schedule control. (PMBOK)

Project Transition Checklist - A document that ensures that the activities of the Planning Phase have been finished, reviewed, and signed off so that the project may move from the Planning Phase into the Execution Phase.

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Projectized Organization - Any organizational structure in which the project manager has full authority to assign priorities and to direct the work of individuals assigned to the project. (PMBOK)

Q

Quality Assurance (QA) - (1) The process of evaluating overall project performance on a regular basis to provide confidence that the project will satisfy the relevant quality standards. (2) The organizational unit that is assigned responsibility for quality assurance. (PMBOK)

Quality Control (QC) - (1) The process of monitoring specific project results to determine if they comply with relevant quality standards and identifying ways to eliminate causes of unsatisfactory performance. (2) The organizational unit that is assigned responsibility for quality control. (PMBOK)

Quality Management - A collection of quality policies, plans, procedures, specifications, and requirements is attained through quality assurance (managerial) and quality control (technical).

Quality Planning - Identifying which quality standards are relevant to the project and determining how to satisfy them. (PMBOK)

R

Remaining Duration (RDU) - The time needed to complete an activity. (PMBOK)

Requirement(s) – A statement or set of statements that define what the user(s) of a product want that product to do. Generally, it defines what capabilities a product needs to have, based on the needs of the users.

Requirements Document - A formal document that consists of a statement or set of statements that define product functions and capabilities as set by the end user.

Reserve - A provision in the Project Plan to mitigate cost and/or schedule risk. Often used with a modifier (e.g., management reserve, contingency reserve) to provide further detail on what types of risk are meant to be mitigated. The specific meaning of the modified term varies by application area. (PMBOK)

Resource - Something that is ready for use or that can be drawn upon for aid or to take care of a need.

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Resource Leveling - Any form of network analysis in which scheduling decisions (start and finish dates) are driven by resource management concerns (e.g., limited resource availability or difficult-to-manage changes in resource levels.) (PMBOK)

Resource-Limited Schedule - Projects schedule whose start and finish dates reflect expected resource availability. The final project schedule should always be resource-limited. (PMBOK)

Resource Loading Profiles - Detailed staffing plan including number of personnel by type over time.

Resource Planning - Determining what resources (people, equipment, materials) are needed in what quantities to perform project activities. (PMBOK)

Responsibility Assignment Matrix (RAM) - A structure which relates the project organization structure to the work breakdown structure to help ensure that each element of the project's scope of work is assigned to a responsible individual. (PMBOK)

Retainage - A portion of a contract payment that is held until contract completion in order to ensure full performance of the contract terms. (PMBOK)

Return on Investment (ROI) - A figure of merit used to help make capital investment decisions. ROI is calculated by considering the annual benefit divided by the investment amount. (GAO)

Risk - Any component that affects the project being completed on time and within budget. It is the possibility of suffering a loss. In a development project, the loss describes the impact to the project, which could be in the form of diminished quality of the end product, increased costs, delayed completion, or failure. (SEI)

Risk Analysis - A technique to identify and assess factors that may jeopardize the success of a project or achieving a goal. The technique also helps define preventive measures to reduce the probability of these factors from occurring and identify countermeasures to successfully deal with these constraints when they develop. (GAO)

Risk Assessment - Review, examination, and judgment of whether or not the identified risks are acceptable. Initial risk assessment is used as a tool to determine project oversight requirements.

Risk Control - Involves executing the Risk Management Plan in order to respond to risk events over the course of the project.

Risk Event - A discrete occurrence that may adversely or favorably affect the project. (PMBOK)

Risk Identification - Determining which risk events are likely to affect the project. (PMBOK)

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Risk Management - The process of identifying, analyzing, and responding to risk factors throughout the life of a project and in the best interests of its objectives.

Risk Management Plan - A formal plan or documentation of the risk management practice (processes, methods, and tools) to be used for a specific project. This directs and manages the activities used to perform risk management within that project. (SEI)

Risk Mitigation - The act of revising the project's scope, budget, schedule, or quality, in order to reduce uncertainty on the project.

Risk Quantification - Evaluating the probability of risk event occurrence and effect. (PMBOK)

Risk Response Control - Responding to changes in risk over the course of the project. (PMBOK)

Risk Statement (also known as statement of risk) - A description of the current conditions that may lead to a loss or a description of the loss or consequence (SEI)

Response Development - Defining enhancement steps for opportunities and mitigation steps for threats. (PMBOK)

S

S-Curve - Graphic display of cumulative costs, labor hours, or other quantities, plotted against time. The name derives from the S-like shape of the curve (flatter at the beginning and end, steeper in the middle) produced on a project that starts slowly, accelerates, and then tails off. (PMBOK)

Schedule Development - Analyzing activity sequences, activity durations, and resource requirements to create the project schedule. (PMBOK)

Schedule Performance Index (SPI) - The ratio of work performed to work scheduled (BCWP/BCWS). See earned value. (PMBOK)

Schedule Variance (SV) - (1) Any difference between the scheduled completion of an activity and the actual completion of that activity. (2) In earned value, BCWP less BCWS. (PMBOK)

Scope - The sum of the products and services to be provided as a project. (PMBOK)

Scope Change - Any change to the project scope. A scope change usually requires an adjustment to the project cost or schedule. (PMBOK)

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Scope Creep - Any increase in the project scope (products and services described by the project) that happens incrementally and is subtle in recognition. (PMBOK)

Scope Definition - Decomposing the major deliverables into smaller, more manageable components to provide better control. (PMBOK)

Scope Planning - Developing a written scope statement that includes the project justification, the major deliverables, and the project objectives. (PMBOK)

Scope Verification - Ensuring that all identified project deliverables have been completed satisfactorily. (PMBOK)

Slack - Term used in PERT for float. (PMBOK)

Specification Documents - Documents that provide specific information about the project deliverable characteristics.

Stakeholder - Individuals and organizations that are involved in or may be affected by project activities. (PMBOK)

Standards - Are specific and, where applicable, technical documents containing directives and mandatory specifications governing the management, development, and use of information technology resources. (COV ITRM STANDARD GOV2000-01.1)

Statement of Work (SOW) - A narrative description of products or services to be supplied under contract. (PMBOK)

Status Reports - A report containing information on a specific project, indicating if the project is ahead of schedule, on schedule, or behind schedule in relation to the project plan.

Successor Activity - (1) In the arrow diagramming method, the activity that departs from a node. (2) In the precedence diagramming method, the "to" activity. (PMBOK)

T

Team Member - The individuals, reporting either part time or full time to the project manager, who are responsible for some aspect of the project's activities. (PMBOK)

Technology Investments – Assets such as business-driven applications, data, facilities, IT human resources, infrastructure, services, operations and processes used to support the flow or processing of information for business activities.

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Technology Portfolio - A management tool comprised of essential information about technology investments, structured to facilitate the evaluation of investment alternatives in support of an agency's overall strategic business plan.

Testing - The actual test of the products or processes created within the development phase of an Information Technology project.

Time-Scaled Network Diagram - Any project network diagram drawn in such a way that the positioning and length of the activity represents its duration. Essentially, the diagram is a bar chart that includes network logic. (PMBOK)

Timeframe - The period when action is required to mitigate the risk. Timeframe is one of the three attributes of risk. (SEI)

Total Cost - The sum of all cost (fixed and variable) for a particular item or activity over a specified period.

Total Cost of Ownership (TCO) - A calculation of the fully burdened cost of owning a component. The calculation helps consumers and enterprise managers assess both direct and indirect costs and benefits related to the purchase of IT components. For the business purchase of a computer, the fully burdened costs can also include such things as service and support, networking, security, user training, and software licensing.

Trigger - Thresholds for indicators that specify when an action, such as implementing a contingency plan, may need to be taken. Triggers are generally used to:

- Provide a warning of an impending critical event
- Indicate the need to implement a contingency plan to preempt a problem
- Request immediate attention for a risk (SEI)

V

Validation – The evaluation of a product at the end of the development lifecycle to ensure that it not only complies with the requirements and the specific criteria set forth by the customer, but performs exactly as expected. (NASA)

Verification - The process of determining whether or not the products of a given phase of a project fulfill the established requirements. (NASA)

W

Workaround - A response to a negative risk event. Distinguished from contingency plan in that a workaround is not planned before occurrence of the risk event. (PMBOK)

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Work Breakdown Structure (WBS) - A deliverable-oriented grouping of project elements that organizes and defines the total scope of the project. Each descending level represents an increasingly detailed definition of a project component. Project components may be products or services. (PMBOK)

Work Package - A deliverable at the lowest level of the work breakdown structure, when that deliverable may be assigned to another project manager to plan and execute. This may be accomplished through the use of a subproject where the work package may be further decom